

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A gas delivery system capable of delivering an anesthesia gas to a plurality of gas outlets, the system comprising:

an oxygen inlet that receives oxygen from an oxygen source;

a pressure regulator having an inlet that receives oxygen from the oxygen inlet and having an outlet that provides oxygen at a lower pressure;

an anesthesia gas source having an inlet coupled to receive low pressure oxygen from the outlet of the pressure regulator and capable of adding anesthesia gas to the low pressure oxygen;

a first gas delivery outlet coupled to a gas delivery device having multiple living specimen interfaces horizontally disposed along a front face of the gas delivery device and capable of simultaneously providing anesthesia gas and oxygen to the multiple living specimen interfaces, wherein the at least one channel comprises a buffer volume configured to substantially reduce flow rate fluctuations from the multiple specimen interfaces, wherein the first gas delivery outlet comprises an outlet port and a first flow control disposed between the anesthesia gas source and the outlet port; and

a second gas delivery outlet coupled to an induction chamber and capable of providing anesthesia gas and oxygen to the induction chamber, wherein the second gas delivery outlet comprises an outlet port and a second flow control disposed between the anesthesia gas source and the outlet port, and

wherein the first and second flow control each allow independent control of gases to the first gas delivery outlet and to the second gas delivery outlet.

2. Cancelled.

3. Cancelled.

4. Cancelled.

5. (Original) The gas delivery system of claim 4 wherein the first flow control allows control of gases from about 0 L/min to about 5 L/min to the first gas delivery outlet.

6. (Original) The gas delivery system of claim 1 wherein the induction chamber further comprises a gas scavenging system that collects anesthesia gas and oxygen that escapes from the induction chamber interior.

7. (Original) The gas delivery system of claim 6 wherein the scavenging system includes a set of holes disposed on a skirt attached to the bottom of the induction chamber, the set of holes in gaseous communication with an exhaust conduit, the set of holes capable of collecting anesthesia gas outside the induction chamber when a suitable negative pressure is applied thereto.

8. (Original) The gas delivery system of claim 7 wherein the set of holes are peripherally disposed about the induction chamber.

9. (Original) The gas delivery system of claim 1 further comprising a purge inlet capable of providing oxygen to the induction chamber interior.

10. (Currently Amended) The gas delivery system of claim 1 wherein the gas delivery device further comprises an inlet for receiving anesthesia gas and oxygen and at least one channel for communicating anesthesia gas and oxygen between the inlet and the ~~one or more~~ multiple specimen interfaces.

11. Cancelled.

12. (Original) The gas delivery system of claim 10 further comprising a disposable sleeve inserted within a specimen interface, the disposable sleeve having a smaller orifice at the at least one channel and a larger orifice distal from the at least one channel.

13. (Original) The gas delivery system of claim 1 wherein each of the one or more living specimen interfaces includes multiple specimen interfaces that provide a substantially equal flow relative to each other.

14-22. Cancelled.

23. (Currently Amended) A gas delivery device capable of providing anesthesia gas and oxygen to multiple living specimens, the gas delivery device comprising a) an inlet for receiving anesthesia gas and oxygen, multiple specimen interfaces, at least one channel for communicating anesthesia gas and oxygen between the inlet and the multiple specimen interfaces, and a vertical slot disposed between two adjacent specimen interfaces, wherein the vertical slot is capable of receiving and holding an opaque light barrier, wherein the at least one channel comprises a buffer volume configured to substantially reduce flow rate fluctuations to the multiple specimen interfaces; and b) an opaque light barrier for insertion in the vertical slot.

24. (Original) The gas delivery device of claim 23 further comprising a disposable sleeve inserted within a specimen interface, the disposable sleeve having a smaller orifice at the at least one channel and a larger orifice distal from the at least one channel.

25. (Original) The gas delivery device of claim 24 wherein the disposable sleeve is frustoconical.

26. (Original) The gas delivery device of claim 23 wherein the channel substantially spans the length of the gas delivery device.

27. Cancelled.

28. (Original) The gas delivery device of claim 23 further comprising a scavenger system capable of drawing in anesthesia gas output from one or more of the specimen interfaces, the scavenger system comprising:

an exhaust port for coupling to a conduit;

at least one hole capable of drawing in anesthesia gas when a suitable negative pressure is applied thereto; and

at least one channel capable of communicating gases between the at least one hole and the exhaust conduit.

29. (Original) The gas delivery device of claim 28 wherein the scavenger system comprises an array of holes perimetrically disposed about one of the specimen interfaces.

30. (Original) The gas delivery device of claim 23 wherein each of the one or more living specimen interfaces includes multiple specimen interfaces that provide a substantially equal flow relative to each other.

31-38. Cancelled.

39. (Currently Amended) A gas delivery system capable of delivering an anesthesia gas to a plurality of gas outlets, the system comprising:

an oxygen inlet that receives oxygen from an oxygen source;

a pressure regulator having an inlet that receives oxygen from the oxygen inlet and having an outlet that provides oxygen at a lower pressure;

an anesthesia gas source having an inlet coupled to receive low pressure oxygen from the outlet of the pressure regulator and capable of adding anesthesia gas to the low pressure oxygen; and

a gas delivery outlet coupled to a gas delivery device capable of simultaneously providing anesthesia gas and oxygen to multiple mice, the gas delivery device comprising an inlet for receiving anesthesia gas and oxygen, a front face including multiple mouse interfaces horizontally disposed along the front face, and at least one channel for simultaneously communicating anesthesia gas and oxygen between the inlet and the multiple mouse interfaces, wherein the at least one channel comprises a buffer volume configured to substantially reduce flow rate fluctuations from the multiple specimen interfaces.

40. (Previously Presented) The gas delivery system of claim 39 wherein the gas delivery device further comprises an inlet for receiving anesthesia gas and oxygen and at least one channel for communicating anesthesia gas and oxygen between the inlet and the multiple specimen interfaces.

41. Cancelled.

42. (Currently Amended) A gas delivery device capable of simultaneously providing anesthesia gas and oxygen to multiple living specimens, the gas delivery device comprising:

a body;

an inlet for receiving anesthesia gas and oxygen;

multiple specimen interfaces, wherein the multiple specimen interfaces are horizontally disposed along a front face of the body; and

at least one channel for simultaneously communicating anesthesia gas and oxygen between the inlet and the multiple specimen interfaces, wherein the at least one channel that horizontally spans the multiple specimen interfaces and comprises a buffer volume configured to substantially reduce flow rate fluctuations from the multiple specimen interfaces.

43. (Previously Presented) The gas delivery device of claim 42 wherein the multiple specimen interfaces are each sized to each at least partially receive the head of a mouse.

44. (Previously Presented) The gas delivery device of claim 43 further comprising a disposable sleeve that is inserted into one of the multiple specimen interfaces and configured to at least partially receive the head of the mouse.

45. (Currently Amended) A gas delivery system capable of delivering an anesthesia gas to a plurality of gas outlets, the system comprising:

an oxygen inlet that receives oxygen from an oxygen source;

a pressure regulator having an inlet that receives oxygen from the oxygen inlet and having an outlet that provides oxygen at a lower pressure;

an anesthesia gas source having an inlet coupled to receive low pressure oxygen from the outlet of the pressure regulator and capable of adding anesthesia gas to the low pressure oxygen;

a gas delivery device capable of simultaneously providing anesthesia gas and oxygen to multiple living specimens, the gas delivery device comprising a) an inlet for receiving anesthesia gas and oxygen, multiple living specimen interfaces, at least one channel for communicating anesthesia gas and oxygen between the inlet and the multiple living specimen interfaces, and a vertical slot disposed between two adjacent specimen interfaces, wherein the vertical slot is capable of receiving and holding a light barrier, and b) an opaque light barrier.

46. (Previously Presented) The gas delivery system of claim 46 wherein the channel substantially spans the length of the gas delivery device.

47. (Previously Presented) The gas delivery system of claim 46 wherein the light barrier is between 0.03 and 0.04 inches thick.

48. (Currently Amended) A gas delivery device capable of providing anesthesia gas and oxygen to a mouse, the gas delivery device comprising:

- a body;

- a front face of the body;

- an inlet for receiving anesthesia gas and oxygen;

- a mouse interface including a hole in the front face, wherein the mouse interface is sized to at least partially receive the head of the mouse; and

- at least one channel for communicating anesthesia gas and oxygen between the inlet and the mouse interface, wherein the at least one channel comprises a buffer volume configured to substantially reduce flow rate fluctuations from the multiple specimen interfaces despite fluctuations in the delivery of anesthesia gas and oxygen, wherein the first gas delivery outlet comprises an outlet port and a first flow control disposed between the anesthesia gas source and the outlet port.

49. (Previously Presented) The gas delivery device of claim 48 further comprising a disposable member for insertion into the mouse interface and configured to at least partially receive the head of the mouse.

50. (Previously Presented) The gas delivery device of claim 49 wherein the disposable member increases in diameter as it extends away from the mouse interface.

51-53. Cancelled.

54. (Previously Presented) A gas delivery device capable of providing anesthesia gas and oxygen to a mouse, the gas delivery device comprising:

- a body;

- a front face of the body;

- an inlet for receiving anesthesia gas and oxygen;

- a mouse interface including a hole in the front face, wherein the mouse interface is sized to at least partially receive the head of the mouse;

- a disposable member for insertion into the mouse interface and configured to at least partially receive the head of the mouse; and

- at least one channel for communicating anesthesia gas and oxygen between the inlet and the mouse interface.

55. (Previously Presented) The gas delivery device of claim 54 wherein the disposable member includes a substantially frustoconical shape.

56. (Previously Presented) The gas delivery device of claim 54 wherein the disposable member increases in diameter as it extends away from the mouse interface.

57. (Previously Presented) A gas delivery system capable of delivering an anesthesia gas to a plurality of gas outlets, the system comprising:

an oxygen inlet that receives oxygen from an oxygen source;

a pressure regulator having an inlet that receives oxygen from the oxygen inlet and having an outlet that provides oxygen at a lower pressure;

an anesthesia gas source having an inlet coupled to receive low pressure oxygen from the outlet of the pressure regulator and capable of adding anesthesia gas to the low pressure oxygen; and

a gas delivery outlet coupled to a gas delivery device capable of providing anesthesia gas and oxygen to a mouse, the gas delivery device comprising a body, a front face of the body, an inlet for receiving anesthesia gas and oxygen, a mouse interface including a hole in the front face, wherein the mouse interface is sized to at least partially receive the head of the mouse, a disposable member for insertion into the mouse interface and configured to at least partially receive the head of the mouse, and at least one channel for communicating anesthesia gas and oxygen between the inlet and the mouse interface.

58. (Previously Presented) The gas delivery system of claim 54 wherein the disposable member includes a substantially frustoconical shape.

59. (Previously Presented) The gas delivery system of claim 54 wherein the disposable member increases in diameter as it extends away from the mouse interface.

60. (Currently Amended) A gas delivery device capable of providing anesthesia gas and oxygen to a mouse, the gas delivery device comprising:

a body;

a front face of the body;

an inlet for receiving anesthesia gas and oxygen;

a mouse interface including a hole in the front face, wherein the mouse interface is sized to at least partially receive the head of the mouse and to provide the anesthesia gas and oxygen in a first direction;

at least one channel for communicating anesthesia gas and oxygen between the inlet and the mouse interface; and

a scavenger system configured to draw in anesthesia gas output by the mouse interface, the scavenger system comprising

an exhaust port for coupling to a conduit,

at least one hole in the front face adjacent to the mouse interface and capable of drawing in anesthesia gas in a second direction that is opposite to the first direction when a suitable negative pressure is applied thereto, and

at least one channel capable of communicating gases between the at least one hole and the exhaust conduit.

61. (Previously Presented) The gas delivery device of claim 60 wherein the scavenger system comprises multiple holes perimetrically disposed about mouse interfaces on the front face.

62-64. Cancelled.